LEU-MET (SEQ ID NO:1), wherein at least four amino acids in said initial peptide sequence are part of a reactive portion with said antibody.

26. (New) The antibody of claim 25, which is a monoclonal antibody.

27. (New) The antibody of claim 25, which is a polyclonal antibody.

28. (New) The antibody of claim 25, which antibody specifically binds to a parathyroid hormone epitope selected from the group consisting of amino acid residues 2-5, 3-6, 4-7, 5-8, 2-6, 3-7 and 4-8 of human parathyroid hormone (SEQ ID NO:2).

29. (New) A method for measuring an amount of whole parathyroid hormone in a sample comprising:

a) adding to a sample a labeled antibody or antibody fragment specific for an initial peptide sequence of whole parathyroid hormone which comprises VAL-SER-GLU-ILE-GLN-LEU-MET (SEQ ID NO:1), wherein at least four amino acids in said initial peptide sequence are part of a reactive portion to said labeled antibody;

b) allowing said labeled antibody to bind to whole parathyroid hormone present, thereby forming a complex; and

c) measuring the amount of said labeled complex to measure the amount of whole parathyroid hormone in said sample while not detecting an interfering non-(1-84) parathyroid hormone fragment.

30. (New) The method of claim 29, wherein the labeled anti-parathyroid hormone antibody or antibody fragment is a monoclonal antibody.

31. (New) The method of claim 29, wherein the labeled anti-parathyroid hormone antibody or antibody fragment is a polyclonal antibody.

32. (New) The method of claim 29, wherein a second antibody is added which is bound to a solid support and specifically binds to a portion of whole parathyroid hormone other than the initial peptide sequence which binds to the labeled antibody.

33. (New) The method of claim 32, wherein the solid support is selected from the group consisting of a protein binding surface, colloidal metal particles, iron oxide particles, latex particles and polymeric beads.

34. (New) The method of claim 33, wherein the complex precipitates from solution.

35. (New) The method of claim 29, wherein the label of the labeled antibody is selected from the group consisting of a chemiluminescent agent, a colorimetric agent, an energy transfer agent, an enzyme, a fluorescent agent and a radioisotope.

36. (New) The method of claim 29, wherein the labeled antibody specifically binds to a parathyroid hormone epitope selected from the group consisting of amino acid residues 2-5, 3-6, 4-7, 5-8, 2-6, 3-7 and 4-8 of human parathyroid hormone (SEQ ID NO:2).

37. (New) A method for measuring an amount of whole parathyroid hormone in a sample comprising:

a) adding to a sample a first antibody or antibody fragment specific for an initial peptide sequence of whole parathyroid hormone which comprises VAL-SER-GLU-ILE-GLN-LEU-MET (SEQ ID NO:1), wherein at least four amino acids in said initial peptide sequence are part of a reactive portion to said first antibody;

b) allowing said first antibody to bind to whole parathyroid hormone present, thereby forming a complex;

c) labeling said complex by adding a second labeled antibody that specifically binds to a portion of whole parathyroid hormone other than said initial peptide sequence that binds to said first antibody to form a labeled complex; and

d) measuring the amount of said labeled complex to measure the amount of whole parathyroid hormone in said sample while not detecting an interfering non-(1-84) parathyroid hormone fragment.

38. (New) The method of claim 37, wherein the second labeled antibody is added sequentially or simultaneously with the first antibody.

39. (New) The method of claim 37, wherein the first antibody is bound to a solid support.

40. (New) The method of claim 37, further comprising binding a third antibody to an epitope left open after the whole parathyroid hormone binds to the first antibody and the second antibody, thereby forming a precipitating mass.

41. (New) The method of claim 37, wherein the first antibody specifically binds to a parathyroid hormone epitope selected from the group consisting of amino acid residues 2-5, 3-6, 4-7, 5-8, 2-6, 3-7 and 4-8 of human parathyroid hormone (SEQ ID NO:2).

42. (New) A method for measuring whole parathyroid hormone by a precipitating or turbidometric immunoassay comprising:

a) adding to a sample an antibody or antibody fragment specific for an initial peptide sequence for whole parathyroid hormone which comprises VAL-SER-GLU-ILE-GLN-LEU-MET (SEQ ID NO:1), wherein at least four amino acids in said initial peptide sequence are part

of an antibody reactive portion of said peptide, said antibody being attached to a colloidal particle or moiety which can be used to detect a signal change;

b) allowing said antibody to bind to whole parathyroid hormone present, thereby forming a complex; and

c) measuring change in said signal due to the formation of said complex to measure whole parathyroid hormone in said sample while not detecting an interfering non-(1-84) parathyroid hormone fragment.

43. (New) The method of claim 42, wherein the first antibody specifically binds to a parathyroid hormone epitope selected from the group consisting of amino acid residues 2-5, 3-6, 4-7, 5-8, 2-6, 3-7 and 4-8 of human parathyroid hormone (SEQ ID NO:2).

44. (New) A kit for assaying for whole parathyroid hormone comprising:

a) a substantially pure antibody or antibody fragment specific for an initial peptide sequence of whole parathyroid hormone which comprises VAL-SER-GLU-ILE-GLN-LEU-MET (SEQ ID NO:1), wherein at least four amino acids in said initial peptide sequence are part of a reactive portion with said antibody; and

b) a labeling component that binds to whole parathyroid hormone, but not to said parathyroid hormone initial peptide sequence VAL-SER-GLU-ILE-GLN-LEU-MET (SEQ ID NO:1).

45. (New) The kit of claim 44, wherein the substantially pure antibody or antibody fragment specifically binds to a parathyroid hormone epitope selected from the group consisting of amino acid residues 2-5, 3-6, 4-7, 5-8, 2-6, 3-7 and 4-8 of human parathyroid hormone (SEQ ID NO:2).

46. (New) A kit for assaying for whole parathyroid hormone comprising:

a) a substantially pure antibody or antibody fragment specific for an initial peptide sequence of whole parathyroid hormone which comprises VAL-SER-GLU-ILE-GLN-LEU-MET (SEQ ID No. 1), wherein at least four amino acids in said initial peptide sequence are part of a reactive portion with said antibody; and

b) a second antibody bound to a solid support and said second antibody is specific for a portion of whole parathyroid hormone that does not include the domain for adenylate cyclase activation.

47. (New) The kit of claim 46, further comprising a third antibody specific for an epitope left open after the whole parathyroid hormone binds to the first and the second antibodies, thereby forming a precipitating mass.

48. (New) The kit of claim 46, wherein the substantially pure antibody or antibody fragment specifically binds to a parathyroid hormone epitope selected from the group consisting of amino acid residues 2-5, 3-6, 4-7, 5-8, 2-6, 3-7 and 4-8 of human parathyroid hormone (SEQ ID NO:2).

49. (New) A method for measuring an amount of a functional N-terminal parathyroid hormone fragment and whole parathyroid hormone in a sample comprising:

a) adding to a sample a first antibody or antibody fragment specific for an initial peptide sequence for whole parathyroid hormone which comprises VAL-SER-GLU-ILE-GLN-LEU-MET (SEQ ID NO:1), wherein at least four amino acids in said initial peptide sequence are part of a reactive portion with said first antibody;

b) adding to said sample a second antibody or antibody fragment specific for a peptide comprising amino acid sequence 28 to 34 of human parathyroid hormone (SEQ ID NO:2), which comprises a domain for protein kinase C activation, wherein at least four amino acids in said peptide sequence are a reactive portion with said second antibody;

c) allowing said first antibody and second antibody, wherein at least one of which is labeled, to bind to N-terminal parathyroid hormone fragment or whole parathyroid hormone present, thereby forming a labeled complex; and

d) measuring the amount of said labeled complex to measure the amount of said functional N-terminal parathyroid hormone fragment and whole parathyroid hormone in said sample while not detecting an interfering non-(1-84) parathyroid hormone fragment.

50. (New) The method of claim 49, wherein the first antibody or antibody fragment specifically binds to a parathyroid hormone epitope selected from the group consisting of amino acid residues 2-5, 3-6, 4-7, 5-8, 2-6, 3-7 and 4-8 of human parathyroid hormone (SEQ ID NO:2).

51. (New) A method for differentiating between a person having substantially normal parathyroid hormone function and having hyperparathyroidism comprising:

a) obtaining a sample from a person to be tested;

b) contacting said sample with a substantially pure antibody or antibody fragment specific for an initial peptide sequence of whole parathyroid hormone which comprises VAL-SER-GLU-ILE-GLN-LEU-MET (SEQ ID NO:1), wherein at least four amino acids in said initial peptide sequence are part of a reactive portion with said antibody;

c) assessing binding between said substantially pure antibody or antibody fragment and whole parathyroid hormone, if present in said sample, to measure whole parathyroid hormone level in said person, while not detecting an interfering non-(1-84) parathyroid hormone fragment, and to determine if said person has substantially normal parathyroid hormone function or has hyperparathyroidism.

52. (New) The method of claim 51, wherein the hyperparathyroidism is primary hyperparathyroidism.

53. (New) The method of claim 51, wherein the hyperparathyroidism is secondary hyperparathyroidism.

54. (New) The method of claim 51, wherein the hyperparathyroidism is caused by chronic renal failure.

55. (New) The method of claim 51, wherein the substantially pure antibody or antibody fragment specifically binds to a parathyroid hormone epitope selected from the group consisting of amino acid residues 2-5, 3-6, 4-7, 5-8, 2-6, 3-7 and 4-8 of human parathyroid hormone (SEQ ID NO:2).

56. (New) The method of claim 51, further comprising comparing the whole parathyroid hormone level determined in said tested person to a whole parathyroid hormone level determined in a normal person without hyperparathyroidism.

57. (New) The method of claim 29, wherein the sample is a rat or human sample.

58. (New) The method of claim 38, wherein the sample is a rat or human sample.

59. (New) The method of claim 42, wherein the sample is a rat or human sample.

60. (New) The method of claim 51, wherein the sample is a rat or human sample.

REMARKS

Upon entry of the present Amendment, claims 25-60 will be pending. Claims 1-24 are canceled without any prejudice and disclaimer and Applicants reserve the rights to pursue the canceled subject matter in a subsequent application. Support for the new claims 25-56 can be